Medical specialists from the East Africa Region and beyond convened for a two-day heart symposium organized by Aga Khan University Hospital to discuss how to best respond to emergency cardiac care situations.

Themed *Acute Cardiovascular Clinical Care*, the event addressed the most common and more urgent clinical emergencies in cardiovascular medicine including hypertensive emergencies, acute chest pain and breathlessness syndromes among other emergencies and how they can be managed.

"Cardiovascular disease including heart disease and stroke is the world’s number one killer. Each year, it’s responsible for 17.5 million deaths and by 2030 this is expected to rise to 23 million. In Africa, the latest projections suggest that by 2030, more people will die from coronary artery disease than from any other cause of death."

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“The rate of progression in this condition is both remarkable and alarming. The fact that Kenyans in their twenties and thirties are now experiencing heart attacks means we can no longer afford to ignore this growing risk to our future health and well-being”, said Dr Mohamed Jeilan, Director, Cardiac Programme and Interventional Cardiologist at Aga Khan University Hospital.

The main challenge in Kenya is patients suffering from heart emergencies do not receive timely treatment. The gap in care comes from poor knowledge of the seriousness of the symptoms and of the condition, poor access to acute cardiac medical services for the majority of the population and financial barriers.

"Currently we have only about 40 cardiology doctors in Kenya, most of whom practice in Nairobi and the other few in Kisumu and Mombasa leaving out the other counties which experience similar heart emergencies. As a result, we invited all county hospital clinical representatives to attend this symposium in order to bridge the knowledge gap in heart emergency response and have them attend to heart attack patients at the county level, stabilising patients with ease before referring them to a more specialised hospital with a cathlab facility."

"Initiatives like The Heart Attack Concern Kenya (HACK), are also moving to address these challenges with a protocol of “systems of care” for efficient management of heart emergencies and integrated networks of facilities. The emphasis is to work with the government, ambulances and medical societies to increase access to timely life-saving treatments."

"HACK in partnership with major hospitals is working on educating the public and professionals alike, on evaluating the systems of care available at county level, engaging newly developed ambulance and emergency services, and incorporating insurance schemes including NHIF to improve access for vulnerable populations."

"HACK works in partnership with ambulance teams, major hospitals including Aga Khan University Hospital and with heart attack teams”, Dr Jeilan further notes.

The annual event brought together specialists in various fields from hospitals in Kenya and beyond including cardiologists, emergency physicians, critical care specialists, nephrologists, pulmonologists, endocrinologists, cardiac and vascular surgeons, cardiac anaesthesiologists, general physicians and critical care nurses.

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AKUH introduces acute stroke service

Patients suffering from emergency strokes will now be saved from prolonged brain damage thanks to an acute stroke service introduced by Aga Khan University Hospital, Nairobi. This was necessitated by the increased number of patients presenting with ischaemic strokes mostly caused by high blood pressure and diabetes, and the need to get such patients to a hospital within an hour or two for medical attention.

A stroke occurs when the blood supply to part of your brain is interrupted or reduced, depriving brain tissue of oxygen and nutrients. Within minutes, brain cells begin to die. The standard treatments to reduce brain damage are thrombolytic medications which thins the blood to break down the blockage and mechanical removal of the clot using a catheter.

Thrombolytic medications need to be administered within few hours of the onset of the stroke. Alternately, removal by catheter also known as mechanical thrombectomy is most effective during the first eight hours of a stroke attack, but may still have good results in select patients up to 24 hours after a stroke. This recently introduced treatment expertise, mechanical thrombectomy, makes use of a state-of-the-art catheter and stent to enter the blocked artery and remove the clot, and produces much improved results than thrombolytic medications. Currently, Aga Khan University Hospital is the only facility offering this procedure in East and Central Africa.

"It is apparent that stroke attacks are becoming more frequent in Kenya and there’s need to have a fast-response unit to manage stroke conditions hence the establishment of the service. This increase is attributed to the growing numbers of people leading a sedentary lifestyle including unhealthy diet of fast foods. Coupled with lack of exercise, this results in obesity which tends to cause strokes and heart attacks", says Dr Edwin Mogere, Consultant Neurosurgeon at Aga Khan University Hospital.

To save the patient’s life and minimise disability, recognising symptoms and seeking medical attention in the shortest possible time is a matter of top priority. The most obvious indicator is numbness, or weakness of the face, arm, or leg especially on one side of the body.

Others are less apparent and might be related to different complaints like tiredness, or loss of balance for some reason. They include sudden confusion, slurred speech with difficulty repeating simple words, or inability to understand words spoken by other people. Even a sudden severe headache can indicate the onset of a stroke.

According to Dr Mogere, Ischemic strokes are the most common type of stroke and occur when a clot blocks an artery that carries blood to the brain. Without oxygen, brain cells die very rapidly creating the risk of permanent brain damage, disability, or death. A different type of stroke can result from a rupture of an artery within the brain leading to bleeding, also known as a hemorrhagic stroke.

"When a patient suffering from a stroke is brought for treatment, a Computed Tomography (CT) scan is carried out to access whether it is ischemic or hemorrhagic. In other cases, especially after the initial 8 hours, more information may be needed and an Magnetic Resonance Imaging (MRI) scan may be used in addition to supplement the CT scan and detect how much brain injury has occurred and if mechanical thrombectomy is still useful to the patient.” Dr Mogere further notes.

The risk factors of stroke include; smoking, diabetes, high cholesterol, obesity, alcohol intake among other factors. Following your doctor’s recommendations and adopting a healthy lifestyle are the best steps you can take to prevent a stroke.

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Fear of recurrence most common concern for Breast Cancer Survivors

Cancer patients consider survivorship the most significant achievement in their lives, but fear of recurrence is the most common concern for cancer survivors. This was evident at a cancer awareness open day organised by Aga Khan University Hospital (AKUH) to mark World Cancer Day 2018 themed ‘We Can. I Can’.

During his presentation, Professor Ronald Wasike, Consultant General and Breast Surgeon at the hospital explained that despite these fears, only about five to ten percent of women with stage 1 or 2 breast cancer would have a recurrence after the initial treatment. This means cancer may return to the same breast, chest wall, or axillary lymph nodes.

Fear of recurrence, dealing with residual side effects of treatment and the need for a survivor to adjust to the usual self, makes up ‘post-treatment syndrome’, a condition that results from patients developing comfort with doctors and nurses, and entrusting them with their health.

Professor Wasike advised breast cancer survivors to be on the lookout for any new lumps in the breast or scar, any ache or pain that is new and remains constant lasting for three weeks or more and most importantly seek regular medical follow-up for early detection of recurrence or a second cancer.

They should also take charge of their lives by living a healthy lifestyle as advised by doctors. Other specific concerns expressed by the survivors include; lymphedema, a condition which rarely occurs after the axillary lymph nodes are removed or radiated as part of treatment for breast cancer and usually managed with physiotherapy; sex and sexuality; fertility after breast cancer and post-menopause hormonal therapy.

Breast cancer survivors were advised to consult their doctors on these concerns following treatment completion.

The event held at Aga Khan University Hospital brought together cancer specialists and over 100 cancer patients and their families, cancer survivors, and people passionate about cancer. Deliberations included the toll cancer takes on families and the country at large. Other activities leading to the world cancer day celebrations included cervical cancer screening of over 80 women by the hospital in support of a collaboration between Treatment, Research and Expert Education (TREE), Othaya Farmer’s Cooperative Society and Atlas Coffee Company (USA) in Nyeri County last week.

Aga Khan University Hospital has acquired an ultra-modern Positron Emission Tomography (PET) CT scanner, and Cyclotron, a first in East and Central Africa and construction is underway to house the technology.

“Information generated from PET CT scans will enable oncologists to make better treatment and follow up plans for cancer patients. In certain cancer situations, this information is critical in making decisions regarding treatment options including surgery, radiation therapy and chemotherapy,” explained Dr Asim Jamal, Section Head Medical Oncology at AKUH.

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Glaucoma is an eye disease that causes progressive irreversible damage of the optic nerve and loss of vision field leading to blindness. Anybody is at risk of this disease which is the leading cause of irreversible blindness worldwide and in Kenya, with over 20,000 cases being reported every year.

With the exception of babies born with congenital glaucoma, there is usually no warning, or obvious symptoms of the disease which has led to glaucoma being described as the ‘sneak thief of sight’. A baby suffering from glaucoma at birth usually has bulging and swollen eyes. Approximately, one in 10,000 babies has glaucoma and parents noticing symptoms should have a check carried out by an ophthalmologist.

Early detection and appropriate therapy of glaucoma can significantly improve a child’s future life and vision. Treatment involves careful evaluation under general anaesthesia.

The intraocular pressure (IOP) is measured and treatment by surgery can be carried out at the same time which reduces subjecting the child to multiple sessions of general anaesthesia. Although anybody is at risk of getting glaucoma, there are certain groups of people who are at a higher risk of contracting the disease. These include those with history of glaucoma in the family, adults over 35 years of age, African race, high IOP, myopia (short-sightedness) and diabetes mellitus. If a member of a family has glaucoma, it is advisable for the other family members to see an ophthalmologist for eye checkups.

The main goal of treatment is to reduce the IOP to a safe level and prevent further loss of vision. This can be done by using pressure lowering eye drops, lasers or a variety of surgical procedures.

One of the signs of glaucoma is worsening of the peripheral vision or the appearance of “blind spots”. This can be realised by a patient when they are not able to see stairs clearly as they walk down stairs, or bump into people as they are not able to see them. In some cases, a driver fails to notice vehicles on either side of his or her car which indicates an advanced case of glaucoma.

As the optic nerve is an extension of the brain, treatment by surgery is currently not available but extensive research is being carried out to develop new treatments for glaucoma. Meanwhile, controlling IOP is the only way of slowing progressive blindness caused by glaucoma. The suffering caused by glaucoma highlights the importance of seeing an ophthalmologist in addition to regular eye screening for early detection of the condition and management.

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Blue Company Certification: Mr Shawn Bolouki, CEO, AKUH, N receives a Blue Company Certification Award Plaque from Judy Njino, Country Coordinator, UN Global Compact Network, a partner of Blue Company, which is a watch-dog body that promotes a corruption-free environment at the workplace. AKUH, N became a member of the body for upholding anti-corruption values.

Diplomats Visit: Mr Shekar Iyer (left), COO and Mr Khurram Jamal (right), Director, Outreach, AKUH, N when they hosted Diplomats including Mr Azim Lakhani (2nd right), Resident Representative, Aga Khan Development Network, Mr Manuel Frederico Pinheiro da Silva (2nd left), Consul General of Portugal to Mozambique and Ms Alison Chartres, Head of Mission, Australian High Commission to Kenya for a tour of the hospital.

Governor’s Visit: H.E. Honourable Dr Joyce Laboso, Governor, Bomet County receives a hospital information package from Mr Shawn Bolouki, Chief Executive Officer (CEO), Aga Khan University Hospital when she visited the hospital to attend a palliative care workshop jointly organised by the hospital and MD Anderson. The CEO and Hon. Dr Laboso discussed areas of collaboration in delivery of quality healthcare for Bomet County.

Muthaiga Golf Club Medical Camp: Dr Anders Barasa, Cardiologist and Pauline Ngatia, Director, Marketing and Business Development at AkUH, N gift winners during a cardiology health talk and medical camp organised at Muthaiga Golf Club for women golfers.
**Amison Delegation Visit:** An Amisom Delegation led by Ambassador Francisco Madeira (centre), Special Representative to the Chair of The African Union Commission for Somalia and Lieutenant General Jim Besigye (3rd from left), Force Commander, AMISOM when they visited AKUH, N for a tour of the facility.

**Karatina Medical Camp:** Residents of Karatina and its environs benefitted from a free medical camp organised by Aga Khan University Hospital in partnership with Karatina University. Over 300 participants were screened during the medical camp.

**World Kidney Day:** Deborah Wawira, a clinical nurse and kidney transplant coordinator at AKUH,N explains to Felista Wanza the results of her urine test during a free screening to mark World Kidney Day 2018. The hospital screened over 600 people for kidney disease.

**LEFT**

Former Miss World India Diana Hayden (2nd right), her husband Collin Dick and daughter Araya Renne Hayden are joined by clinical nurses Caroline Mwangi (left) and Serah Mararo (right) to welcome their twin bundle of joy at Aga Khan University Hospital, Nairobi.

The twins named Rhys Michael Hayden (boy) and Taylor Hayden (girl) have different birthdays with Rhys born on March 15th at 11:59 pm and Taylor born on March 16th at 12:02 am.
Polycystic ovarian syndrome: a common condition among women of childbearing age

Polycystic ovary syndrome (PCOS) is a condition that affects a woman’s hormone levels which is common among women of reproductive age. Women with PCOS produce higher than normal amounts of male hormones called androgens. The exact cause of PCOS is unknown but genetics may be a factor.

PCOS affects women’s ovaries, the reproductive organs that produce oestrogen and progesterone hormones that regulate the menstrual cycle. As a result there is elevated production of androgen.

“Androgen is associated with many of the symptoms including irregular periods, reduced fertility, acne, weight gain that is difficult to shed of and abnormal hair distribution. Long term effects that may not be immediately apparent include disordered glucose control leading to diabetes, high blood pressure and heart disease,” said Dr Sikolia Wanyonyi, an Obstetrician Gynecologist and Fertility Specialist at Aga Khan University Hospital.

According to Dr Wanyonyi, diagnosis is made following symptoms, hormone tests and ultrasound imaging of the ovaries. The ovaries are usually enlarged with multiple follicles, or small cysts, hence the description polycystic ovaries. However, some women will have a polycystic appearance of the ovaries without having the syndrome.

Dr Wanyonyi states that PCOS has no cure but can be managed through healthy eating habits coupled with exercises to maintain a normal weight and reverse most of the symptoms and associated consequences. Women should aim for a body mass index (BMI) between 19 and 25.

“Hormone tablets can also be used to induce regular periods and reverse physical changes. Skin and hair changes may take longer to improve and some women will need to incorporate cosmetic measures like shaving.”

“Attaining a normal BMI is an important initial step, however, some women will require ovulation medications and if given and monitored appropriately, there is a higher chance of conceiving. Ovarian surgical procedures are only considered as a last result”, Dr Wanyonyi further notes.

Follow up for long term health effects should be discussed with your gynecologist. Regular blood sugar checks, blood pressure monitoring and related cardiovascular assessment may be advised.

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An illustration of a polycystic ovarian syndrome.
Extreme preterm babies at risk of blindness

Up to 40 per cent of premature babies born 32 weeks or earlier and weighing less than 1500 grams in Kenya are at a high risk of vision impairment commonly referred to as Retinopathy of Prematurity (ROP).

Mothers expecting or with premature babies born at 32 weeks or earlier and weighing less than 1500 grams should be well informed of the risks and health problems likely to occur after birth. One of the major risks includes loss of sight due to a condition referred to as Retinopathy of Prematurity (ROP).

During foetal development, blood vessels in the eye grow from the central part of the retina outwards; a process that is usually completed a few weeks before the normal delivery time. However, in premature babies, the process is incomplete. In some cases, the blood vessels continue with normal growth while in others it may result in abnormal growth.

Dr Sarah Sitati, a Consultant Ophthalmologist at Aga Khan University Hospital explains, "ROP is a condition that appears one month after birth. It is as a result of abnormal growth of blood vessels in the retina. This causes bleeding inside the eye triggering detachment of the retina and eventually blindness before six months. Supplemental exposure to high oxygen concentration is a risk factor for the development of the disease."

"However, this blindness in preterm babies can be managed. Using eye drops, ophthalmologists dilate the eye and examine it through an indirect ophthalmoscope to check the retina. This procedure is conducted every two weeks until the condition regresses or blood vessels mature. The discovery stage of the disease is a key determinant on the disease progression, or regression."

Ten per cent of the infants diagnosed with the disease require treatment which is done through laser therapy or injections.

"As a preventative measure, antenatal steroids are normally administered to the mother during preterm labor to help curb health complications. After birth, breast milk has also been associated with reduced risk of many severe complications of prematurity.

"The indirect opthalmoscope is available in public and private hospitals. However, there is a growing concern about clinical centres registering increased premature births and lacking the necessary equipment for diagnosis of preterm blindness. It is for this reason that we encourage mothers to visit well equipped facilities as a precautionary measure within the one month window period", Dr Sitati notes further.

"In order to control the prevalence of the disease, the ROP National Working Group which consists of neonatologists and ophthalmologists has started training pediatricians, ophthalmologists and nurses country wide to be conducting this screening on preterm babies, with the first phase being launched in Nairobi."

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Kidney disease cases in Kenya increasing at an alarming rate

By Dr Ahmed Sokwala, Section Head, Nephrology and Consultant Physician and Nephrologist, Aga Khan University Hospital, Nairobi

Kidney disease is one of the most dreaded diseases and is increasing at an alarming rate all over the world. Currently, about one in every ten persons has some form of chronic kidney disease and about four million Kenyans have a form of kidney disease with a significant proportion of this population progressing to kidney failure. It is estimated that 4.8 million Kenyans will be suffering from Kidney disease by 2030.

A number of illnesses can cause permanent damage to the kidneys, but the two main ones are diabetes and high blood pressure which account for about two thirds of the damage. Other contributors include obesity, smoking and high cholesterol levels. Early detection of kidney disease and appropriate treatment can slow the progression of the disease. Simple tests like urinalysis, monitoring of one’s blood pressure and sugar level testing can identify likely problems and are recommended for screening at risk population.

Sometimes to diagnose the cause of kidney failure, a biopsy is done. A small piece of kidney tissue is removed and examined under a microscope which helps to identify abnormalities in kidney tissue that may be the cause of the disease. These diseases called glomerulonephritis are treatable if diagnosed early.

Many of the patients are not diagnosed early or misdiagnosed and hence end up on dialysis. Symptoms of kidney problems include blood in the urine, foamy urine, swelling of feet and face and difficulty in breathing. With advanced chronic kidney disease (CKD), a patient may develop loss of appetite, increased sleepiness, nausea, vomiting, confusion, and difficulty in thinking. CKD also called kidney failure is a condition in which the kidneys lose the ability to remove waste and excess water from the bloodstream. As waste and fluids accumulate, the other body systems get affected, potentially leading to complications.

The first step in the treatment and prevention of chronic kidney disease from worsening is to determine the underlying cause. Some causes are reversible, including use of medications to treat complaints that impair kidney function like blockage in the urinary tract, or decreased blood flow to the kidneys. The presence of albumin, or protein in the urine (called albuminuria or proteinuria) is a marker of kidney disease. Even small amounts of albumin in the urine may be an early sign of CKD in some people, particularly those with diabetes and high blood pressure.

There is no remedy for advanced CKD and the only solution is dialysis (a procedure by which waste products and excess water that accumulate in renal failure are removed from the body using machines), or a kidney transplant to maintain life.

However, transplant is the most effective and best treatment option for patients with CKD. This is a surgical procedure in which a healthy kidney (from a living or deceased donor) is placed into the body of a person suffering from end-stage kidney disease.

There is a general belief among Kenyans that the only options for kidney transplant surgeries are facilities in India, Europe, or South Africa in hospitals that have qualified doctors, experienced surgeons and the latest medical technology. However, kidney transplant technology is also locally available and the cost compares favourably with treatment abroad, ease of follow-up clinics with your local doctor, avoids travelling expenses and the patient has the support of family members and friends.

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Immunisation essential for a healthy nation

By Dr Jaimini Gohil, Chief Pharmacist, Aga Khan University Hospital, Nairobi

This year’s World Immunisation Week themed ‘Vaccines work, Do your part’ highlighted the collective action needed to ensure that every person is protected from vaccine-preventable diseases yet many of us may not be familiar with the importance of being immunised against infectious diseases that can be fatal.

Immunisation is providing protection against an infectious disease by introducing to the body a preventive antigen or immunogen, in the form of a vaccine which is either the killed or altered form of the bacteria or virus. This vaccine is responsible for ensuring the body produces the fighting mechanism, i.e. antibodies protecting against subsequent exposure to the disease or infection.

The diseases caused by these viruses and bacteria have not been eradicated, they still exist, and in this era, where a person can travel across the globe in a day, the risks of exposure and transmission is much higher than anticipated. Generally, vaccines are much safer, and the benefits of vaccination outweigh the risks of the infection by the bacteria or virus. The short-term and long-term complications of the infection are much higher than any known side effects of vaccination.

The Ministry of health since 1980’s, through the Kenya Expanded Programme on Immunisation (KEPI), has enabled the country to immunise children and antenatal women to curb six childhood disease, i.e. Tuberculosis, Whooping cough, Tetanus, Polio, Measles, and Diphtheria, and protect against neonatal tetanus respectively. This is a crucial step to ensure our nation has healthy individuals and prevent the economic and social loses due to the vaccine-preventable diseases. Immunisation has a significant impact on the well-being of an entire family and the country at large.

When a person of the household is infected, chances of passing the infection unknowingly to other family members is very high especially children including neighbours. In addition to the above vaccines, there are additional vaccines that protect against diseases like Rota Virus that causes diarrhea and the Flu vaccine that protects against influenza which is highly recommended for the elderly and children.

During the 2017 National Immunisation Stakeholders Meeting by the Ministry of Health, it was indicated that 8 out of every 10 children are fully vaccinated before their first birthday which has significantly reduced cases of childhood vaccine preventable diseases like polio, measles, diarrhoea among others.

The stakeholders are working together to ensure that every child is immunised especially in the urban informal settlements, where the prevalence of unvaccinated children is higher.

Vulnerable individuals such as people living with HIV/AIDS or cancer patients, whose immune system is compromised, can significantly benefit from these vaccinations by consulting their healthcare provider to avert possible infections and communicable diseases. Immunisation is essential for infants and the elderly as they are at higher risk of serious infections, however, vaccine-preventable diseases can affect anyone and therefore it is crucial to stay protected.

Just like eating healthy food, doing regular exercise and going for screening for colon and breast cancer, it is important to follow the recommended vaccinations for your age group and aim to prevent diseases that are preventable. After all ‘prevention is better than cure’.

For more information please contact Vaccination Centre
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Right from the time you decide to have a baby, pre-pregnancy planning, to the time you conceive, our team of specialist doctors and nurses care for you and your unborn child to ensure you have a healthy pregnancy period through to delivery and after care.

Contact: Tel: +254 20 366 2011/2019; E-mail: maternity@aku.edu